



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,883	04/14/2004	Man Keung Tse	039236-026000	7295
22204	7590	03/21/2006	EXAMINER	
NIXON PEABODY, LLP 401 9TH STREET, NW SUITE 900 WASHINGTON, DC 20004-2128			BROUSSARD, COREY M	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/824,883

Applicant(s)

TSE ET AL.

Examiner

Corey M. Broussard

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s) *

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "first gap" and the "second gap" must be shown or the features canceled from the claims. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference signs mentioned in the description: 350 and 355 first mentioned on page 4 lines 21 and 23 respectively. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: The input power cord is labeled as element 130 and 150 on page 4 lines 10 and 11. Also, the second paragraph of page 4 is not numbered.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2, 13, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2 and 14 utilize the term "vaneshaped". It is unclear what limitations this is meant to define. The disclosure lacks an adequate description of the shape being claimed.

6. With respect to claim 13, it is unclear how to interpret the word "build-in".

Claim Objections

7. Claims 1 and 11 are objected to because of the following informalities: the letter "a" between "the" and "first" in line 9 and 8 of the claims respectively is grammatically incorrect and should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

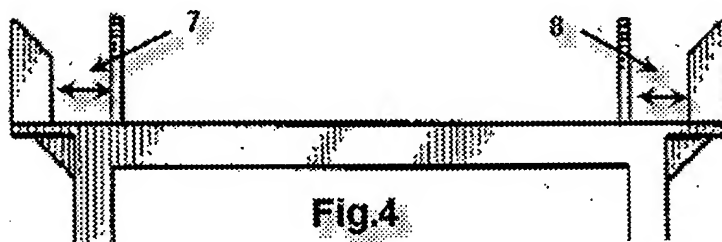
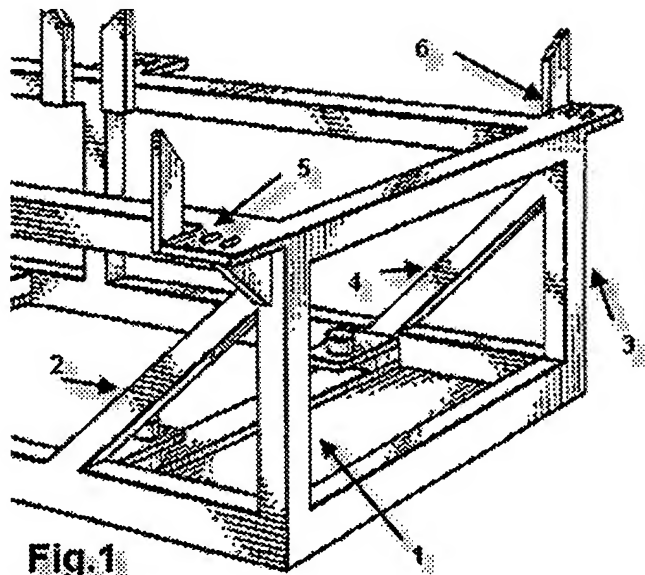
9. Claims 1-7 and 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart et al. (PN 5,870,284) in view of Tate (PN D279,283). With respect to claim 1, Stewart teaches an output cord (141); and a stand (115 and 125), coupled to the output cord (the output cord is coupled to the stand by the module 140), the stand having a base (125), the power module (14) plugging into the stand allowing vertical

Art Unit: 2835

heat dissipation along vertical surfaces of said power module (see col 22, 10-21).

Stewart lacks vertical members extending to corresponding fins extending away from the module in different directions and defining a gap. Tate teaches a power module support (with labeled elements shown below), having a first vertical piece (1) extending from the base to a first fin (5) that extends out from the base away from the module (the module would be supported inside of the frame) in a first direction, and having a second vertical piece (3) extending from the base to a second fin (6) that extends out from the base away from the module in a second direction, the power module plugging into the stand defining a first gap (7) along an edge of the first fin that is adjacent to the first side of the power module and defining a second gap (8) along an edge of the second fin that is adjacent to the second side of the power module, allowing vertical heat dissipation generated by the power module with air flow vertically through the first and second gaps and along respective substantially vertical surfaces of said power module. It would have been obvious to a person of ordinary skill in the electronic art to combine the power supply system of Stewart with the conventional power supply support of Tate for the benefit of a lightweight support frame having large windows for cooling air.

Art Unit: 2835



10. With respect to claim 2 as best as it can be understood, Tate teaches wherein the stand comprises a third vertical piece (2) extending from the base to the first fin (5), a further vertical piece (4) extending from the base to the second fin (6), the first and third vertical pieces forming a first vanes-shaped configuration with an opening between the first and third vertical pieces, the second and fourth vertical pieces forming a second vanes-shaped configuration with an opening between the second and fourth vertical pieces.

11. With respect to claims 7 and 20, Stewart teaches wherein the power module (140) comprises a power converter (col 7, 2-3).

12. With respect to claim 10, Stewart teaches wherein an input power cord (142) is coupled to the stand (the input cord is coupled to the stand by the module 140).

13. With respect to claim 11, Stewart teaches an air fan (col 22, 10-21); and a stand (115, 125), coupled to the output cord (141 is coupled to the stand by the module 140), the stand having a base (125), the power module (14) plugging into the stand allowing vertical heat dissipation along vertical surfaces of said power module (see col 22, 10-21). Stewart lacks vertical members extending to corresponding fins extending away from the module in different directions and defining a gap. Tate teaches a first vertical piece (1) extending from the base to a first fin (5) that is parallel to the base and having a second vertical piece (3) extending from the base to a second fin (6) that is parallel to the base, the power module plugging into the stand for creating a first gap (7) along an edge of the first fin that is adjacent to the first side of the power module and creating a second gap (8) along an edge of the second fin that is adjacent to the second side of the power module, allowing vertical heat dissipation generated by the power module with air flow vertically through the first and second gaps and along respective substantially vertical surfaces of said power module. It would have been obvious to a person of ordinary skill in the electronic art to combine the power supply system of Stewart with the conventional power supply support of Tate for the benefit of a lightweight support frame having large windows for cooling air.

14. With respect to claim 12, Stewart teaches wherein the air fan is a replaceable unit (it is well known that the cooling fans used in the computer art are inherently replaceable).

15. With respect to claim 13 as best as it can be understood, the air fan is build-in into the stand (the air fan must assembled with the system to provide cooling air).

16. With respect to claim 14 as best as it can be understood, Tate teaches wherein the stand comprises a third vertical piece (2) extending from the base to the first fin (5), a further vertical piece (4) extending from the base to the second fin (6), the first and third vertical pieces forming a first vanes-shaped configuration with an opening between the first and third vertical pieces, the second and fourth vertical pieces forming a second vanes-shaped configuration with an opening between the second and fourth vertical pieces.

17. With respect to claims 3 and 15, Stewart teaches wherein the stand comprises a male socket (1715), the power module having a female socket (2300) connected to the mail socket of the stand (col 12, 17-21).

18. With respect to claims 4 and 16, Stewart is silent regarding the reversal of male and female connectors. It has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. In re Gazda 104 USPQ 400 (CCPA 1955). It would have been obvious to a person of ordinary skill in the art to place the male conductor on the power module and the female conductor on the stand for the benefit of protecting the contacts of the stand connector from damage during assembly.

19. With respect to claims 5 and 17, Stewart is silent regarding a reel section for winding. It is old and well known to use a winding reel to store an electrical cord. It would have been obvious to a person of ordinary skill in the art to combine a well known

reel for winding the input cord for the benefit of storing the cord as part of the stand when it is not in use making it easier to move and preventing the cable from knotting or becoming tangled.

20. With respect to claims 6 and 18, Steward teaches wherein the base (125) of the stand has a footprint that provides stability for vertically mounting the power module (see Fig. 1).

21. With respect to claim 19, Stewart teaches an output cord (141) coupled to the stand (the output cord is coupled to the stand by the module 140).

22. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stewart et al. (PN 5,870,284) and Tate (PN D279,283) as applied to claim 1 above, and further in view of Muller et al. (US Pub 2005/0162832). Stewart and Tate lack any teaching of a power generator or fuel cell. Muller teaches using a fuel cell (10) to generate energy for a personal computer (see [0004]). It would have been obvious to a person of ordinary skill in the computer art to replace the power converter of Stewart with a fuel cell as suggested by Muller for the benefit of a portable computer able to power itself without a connection to a power grid.

Examiner's Comments

23. The Examiner cautions the Applicant from relying on functional language in the claims to determine patentability. The claims should describe what the invention *is*, not what it *does*. See MPEP 2114.

24. The Examiner cautions the Applicant from relying on the vertical or horizontal orientation of an element for patentability. In open-ended claims, even if the point of reference is clearly defined, it can be difficult to limit a structure to an orientation, since at least some portion of the structure would align with the orientation claimed.

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Beckman (PN 6,307,746), Jeudi (PN 6,747,871), Impellizzeri (PN 6,213,866), and Dalheimer (PN 6,618,248) teaching power supply stands with a fan that facilitates cooling. Byrne et al. (US Pub 2004/0150944) teaching that a stand for an electronic module can support a separate power module. Fukami et al. (D502,913) and McNair (D242,675) demonstrating known power module stand designs. Skowronski (PN 6,926,130), Huang (US Pub 2005/0155830), Chung (PN 6,325,665), Martensson (PN 5,923,147), Hume (D255,419) demonstrating the well know and conventional reel systems for storing cables. Huang also teaches a cooling fan combined with the reel cable system. Hume also teaches a well known mechanical support having two vertical pieces and a fin and is related to the problem of storing cables when not in use.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey M. Broussard whose telephone number is 571 272 2799. The examiner can normally be reached on 7:30-5 M-F.

Art Unit: 2835

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmb
cmb


LYNN FEILD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800